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SOME TWINING VINES

ASK any gardener how many species of hardy ligneous twining vines there are, and the answer may be from six to twelve; yet, the Arnold Arboretum has approximately 65 species and varieties of hardy twining vines growing within its boundaries. Truly a surprising number! And this is not all, for if the other climbing vines are added to this list, the total number of woody vines actually growing in the Arboretum today is well over 150. All of these are not good landscape plants, but there are some which might well bear further investigation by the interested gardener.

Old-fashioned vines like *Actinidia arguta*, *Aristolochia durior*, and *Celastrus scandens* are all grown here, of course. So are the Chinese and Japanese wisterias (*Wisteria sinensis* and *W. floribunda*). However there are 34 other wisteria species and varieties being grown also, many of which have been added to the collections during the last three years. It is doubtful if all the varieties in this genus now being offered by American nurseries are distinct and worthy of individual varietal names; nevertheless, all are now being grown on a long arbor recently erected near the old Bussey Institution Building, and after they become well established and produce flowers, it will doubtless be most interesting to study their differences.

Akebia quinata can be considered as one of the best of these vines for foliage. Its palmately compound leaves are semi-evergreen, and its small purplish colored flowers—though not conspicuous—are most interesting and unusual. *Akebia trifoliata* (*A. lobata*) has three leaflets instead of five and is somewhat coarser in texture because of this character. There is a vigorously growing hybrid (*A. pentaphylla*) between the two now growing in the Arboretum. This plant has leaves with

three, four, and five leaflets. All three have tuberous roots, are easy to divide and of very vigorous growth once they become well established. When not allowed sufficient space in which to expand, the foliage becomes so dense that some of the inner leaves are shaded to such an extent that they often become yellow and drop off.

The bower actinidia (*Actinidia arguta*) is perhaps the most vigorous of all these climbers (actually *Pueraria thunbergiana* is, but this plant is not winter-hardy at the Arnold Arboretum). The sexes are separate, and the pistillate plant bears fruits that are about the size of a gooseberry and very good for making jelly. At one time the Hicks Nurseries at Westbury, Long Island, had five strains of this species selected primarily for their large fruits. These are now represented in the collections at the U. S. D. A. Bureau of Plant Introduction Station, Bell, Maryland. *Actinidia polygama* is another climber, very enticing to cats. Several plants have been literally chewed to death in our vine collection. A few years ago Mr. Judd grew some in the greenhouse for a time, and he states that cats were so attracted by the delicious odor from this plant that they actually crept through the overhead greenhouse ventilators to get a taste of it. This vine is relatively rare in American gardens and if grown should be protected by wire screening of some sort.

Two species of *Celastrus* are commonly used, *Celastrus scandens*, native to the United States, and *C. orbiculata*, (*C. articulata*) native to Japan and China. Both are excellent for their ornamental fruits, and vigorous twining habit of growth. The peculiar *C. flagellaris* from northeastern Asia makes an unusually effective barrier because it has stipular spines that are very effective indeed. It is the only hardy twining vine with thorns that thrives with us and consequently should have many uses. (*Smilax* also has thorns, but this is not considered to be a twining vine). This *Celastrus* is perfectly hardy in the Arboretum and might very well be tried elsewhere.

The common moonseed (*Menispermum canadense*) is a vigorous twining vine that spreads rapidly over the ground and quickly climbs up any means of support with which it comes in contact. It easily becomes a pest, for it escapes its bounds rapidly, but is not as bad in this respect as *M. dauricum*; it should be used with some discretion. These vines are not very woody and usually die down to the ground in winter, but on the trellis in the Shrub Collection, some of the vines have already grown as much as eight feet high this spring alone.

The two silk vines (*Periploca graeca* and *P. sepium*) suffer winter injury frequently here in the Arboretum. The Grecian silk vine (*P.*

graeca) is the taller growing of the two, has more foliage, but is not as hardy as the Chinese silkvine (*P.sepium*). Their fruits are long pods, which, when they open in the fall, are full of fluffy seeds reminding one of the milkweed.

There are actually 36 named wisterias growing in the Arboretum. The differences between some of the varieties of *W.floribunda* may not be very marked, but most of these forms are being offered in the nurseries of the United States. In the Chinese wisteria the flowers of each cluster open at once, while in those of the Japanese wisteria the flowers open progressively from the base of the long cluster to the end. Both are good plants, with deliciously fragrant flowers, the Chinese form being more common in landscape use, although the *W.floribunda* is somewhat hardier. It is from specimens of our native *W.frutescens* that this genus was first named by Nuttall in 1818. Seeds of the Japanese wisteria were first sent to this country by Dr. George R. Hall, to his friend Samuel Parson, of Flushing, Long Island, in 1862. Today "wisteria" and *W.sinensis* are synonymous to many Americans, but nurserymen are beginning to offer some forms of the Japanese wisteria with long racemes, so that it will not be long before these also become familiar.

It may be of interest to Bulletin readers to note in which direction the various vines twine. One of the catch questions in many a quiz on garden matters centers on this interesting point. There is not a haphazard method of twining, but the plants of each species invariably twine consistently in one direction. In training young vines, this should be kept in mind, for it is just as easy to wind young plants around their supports in the right direction, and the chances are that this will be much more likely to be permanent. I have just now inspected all the vines listed here and have noted their habit in this respect. It will be seen that the species of each genus consistently twine in the same direction in all cases, except the wisterias. Three species of this genus twine by climbing from left to right, and two species twine by climbing in the opposite direction (i.e., from right to left). All our plants at the Arboretum have been examined in this respect, and in the case of *W.floribunda* two plants of more than a dozen examined were found that twined in the opposite direction from the majority of this species. Consequently we should welcome correspondence on this subject particularly if some plants of the species named are found which do not twine in the manner noted below.

TWINING VINES

Twining by climbing from left to right

<i>Actinidia polygama</i>	Silvervine
“ <i>purpurea</i>	Purple Actinidia
“ <i>melanandra</i>	
“ <i>kolomikta</i>	Kolomikta
“ <i>arguta</i>	Bower Actinidia
<i>Akebia pentaphylla</i>	
“ <i>trifoliata</i>	Threeleaf Akebia
“ <i>quinata</i>	Fiveleaf Akebia
<i>Aristolochia durior</i>	Dutchman's Pipe
“ <i>kaempferi</i>	
“ <i>manshuriensis</i>	
<i>Celastrus flagellaris</i>	Korean Bittersweet
“ <i>orbiculata</i>	Oriental Bittersweet
“ <i>scandens</i>	American Bittersweet
“ <i>loeseneri</i>	
“ <i>hypoleuca</i>	
<i>Menispermum canadense</i>	Common Moonseed
“ <i>dauricum</i>	Asiatic Moonseed
<i>Periploca graeca</i>	Grecian Silkvine
“ <i>sepium</i>	Chinese Silkvine
<i>Wisteria frutescens</i>	American Wisteria
“ <i>macrostachya</i>	Kentucky Wisteria

Twining by climbing from right to left

<i>Berchemia racemosa</i>	Japanese Supplejack
<i>Dioscorea villosa</i>	Wild Yam
<i>Lonicera henryi</i>	Henry Honeysuckle
“ <i>japonica halliana</i>	Hall's Honeysuckle
“ <i>sempervirens</i>	Trumpet Honeysuckle
<i>Schisandra chinensis</i>	
* <i>Wisteria floribunda</i>	Japanese Wisteria
“ <i>formosa</i>	(<i>W. sinensis</i> × <i>W. floribunda</i>)

*Of about fourteen plants of this species examined, all but two twined by climbing from right to left. Those two twined by climbing from left to right! The experiences of others are welcomed on this interesting and often controversial subject.

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